

Performance - 2.4

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SIZE OF VOCABULARY : 30449

===== BASE-MNB =====

Emotion Score: 0.38805144919101386

Emotion Classification Report:

	precision	recall	f1-score	support
admiration	0.48	0.45	0.47	2141
amusement	0.52	0.29	0.37	1178
anger	0.39	0.12	0.19	1060
annoyance	0.17	0.06	0.09	1584
approval	0.23	0.09	0.13	2240
caring	0.30	0.06	0.10	721
confusion	0.35	0.06	0.11	999
curiosity	0.41	0.10	0.17	1188
desire	0.35	0.04	0.07	389
disappointment	0.38	0.05	0.08	965
disapproval	0.27	0.08	0.12	1558
disgust	0.43	0.06	0.10	582
embarrassment	0.62	0.02	0.03	316
excitement	0.29	0.03	0.06	586
fear	0.47	0.04	0.08	348
gratitude	0.72	0.67	0.70	1360
grief	0.00	0.00	0.00	78
joy	0.38	0.12	0.18	897
love	0.62	0.34	0.44	1014
nervousness	0.00	0.00	0.00	156
neutral	0.37	0.85	0.51	11161
optimism	0.44	0.14	0.22	894
pride	0.00	0.00	0.00	128
realization	0.25	0.03	0.06	964
relief	1.00	0.00	0.00	162
remorse	0.30	0.03	0.06	303
sadness	0.38	0.09	0.14	727
surprise	0.33	0.07	0.11	665
accuracy		0.39		34364

macro avg	0.37	0.14	0.16	34364
weighted avg	0.38	0.39	0.31	34364

Sentiment Score: 0.541846118030497

Sentiment Classification Report

	precision	recall	f1-score	support
ambiguous	0.42	0.23	0.30	3816
negative	0.53	0.52	0.52	7677
neutral	0.49	0.50	0.49	11161
positive	0.61	0.70	0.65	11710
accuracy			0.54	34364
macro avg	0.51	0.49	0.49	34364
weighted avg	0.53	0.54	0.53	34364

===== BASE-DT =====

Emotion Score: 0.35921313001978816

Emotion Classification Report:

	precision	recall	f1-score	support
admiration	0.41	0.56	0.47	2141
amusement	0.39	0.54	0.45	1178
anger	0.25	0.37	0.30	1060
annoyance	0.14	0.22	0.17	1584
approval	0.20	0.26	0.22	2240
caring	0.22	0.28	0.25	721
confusion	0.22	0.28	0.25	999
curiosity	0.33	0.36	0.34	1188
desire	0.22	0.30	0.25	389
disappointment	0.17	0.18	0.17	965
disapproval	0.26	0.25	0.25	1558
disgust	0.23	0.16	0.19	582
embarrassment	0.25	0.18	0.21	316
excitement	0.18	0.18	0.18	586
fear	0.39	0.36	0.37	348
gratitude	0.73	0.72	0.72	1360
grief	0.10	0.09	0.09	78
joy	0.29	0.23	0.26	897
love	0.55	0.50	0.53	1014
nervousness	0.16	0.12	0.13	156
neutral	0.51	0.44	0.47	11161
optimism	0.34	0.18	0.24	894
pride	0.13	0.05	0.08	128
realization	0.19	0.08	0.11	964
relief	0.22	0.07	0.10	162

remorse	0.37	0.25	0.30	303
sadness	0.35	0.20	0.26	727
surprise	0.37	0.20	0.26	665

accuracy		0.36		34364
macro avg	0.29	0.27	0.27	34364
weighted avg	0.37	0.36	0.36	34364

Sentiment Score: 0.5392270981259457

Sentiment Classification Report

	precision	recall	f1-score	support
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ambiguous	0.36	0.48	0.41	3816
negative	0.50	0.59	0.54	7677
neutral	0.51	0.47	0.49	11161
positive	0.70	0.59	0.64	11710

accuracy		0.54		34364
macro avg	0.52	0.53	0.52	34364
weighted avg	0.55	0.54	0.54	34364

===== BASE-MLP =====

Emotion Score: 0.42055639622861135

Emotion Classification Report:

	precision	recall	f1-score	support
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admiration	0.52	0.45	0.48	2141
amusement	0.50	0.59	0.54	1178
anger	0.36	0.12	0.18	1060
annoyance	0.19	0.02	0.04	1584
approval	0.54	0.03	0.06	2240
caring	0.34	0.02	0.03	721
confusion	0.52	0.02	0.05	999
curiosity	0.47	0.06	0.11	1188
desire	0.35	0.02	0.03	389
disappointment	0.00	0.00	0.00	965
disapproval	0.26	0.02	0.04	1558
disgust	0.56	0.01	0.02	582
embarrassment	0.00	0.00	0.00	316
excitement	0.57	0.01	0.01	586
fear	0.00	0.00	0.00	348
gratitude	0.78	0.76	0.77	1360
grief	0.00	0.00	0.00	78
joy	0.42	0.16	0.23	897
love	0.59	0.59	0.59	1014
nervousness	0.00	0.00	0.00	156

neutral	0.38	0.92	0.54	11161
optimism	0.54	0.21	0.30	894
pride	0.00	0.00	0.00	128
realization	0.00	0.00	0.00	964
relief	0.00	0.00	0.00	162
remorse	0.45	0.36	0.40	303
sadness	0.49	0.10	0.17	727
surprise	0.44	0.08	0.14	665
accuracy		0.42		34364
macro avg	0.33	0.16	0.17	34364
weighted avg	0.40	0.42	0.32	34364

Sentiment Score: 0.5601210569200326

Sentiment Classification Report

	precision	recall	f1-score	support
ambiguous	0.45	0.24	0.31	3816
negative	0.58	0.44	0.50	7677
neutral	0.48	0.65	0.55	11161
positive	0.68	0.66	0.67	11710
accuracy		0.56		34364
macro avg	0.55	0.50	0.51	34364
weighted avg	0.57	0.56	0.55	34364

===== TOP-MNB =====

Best Emotion Score: 0.3832717235506721

Best Emotion Estimator: MultinomialNB(alpha=0.5)

Emotion Clasisfication Report:

	precision	recall	f1-score	support
admiration	0.46	0.52	0.49	2141
amusement	0.49	0.43	0.46	1178
anger	0.35	0.20	0.25	1060
annoyance	0.17	0.10	0.13	1584
approval	0.23	0.13	0.16	2240
caring	0.22	0.13	0.16	721
confusion	0.31	0.14	0.19	999
curiosity	0.36	0.19	0.25	1188
desire	0.36	0.12	0.18	389
disappointment	0.26	0.09	0.13	965
disapproval	0.24	0.14	0.18	1558
disgust	0.35	0.12	0.18	582
embarrassment	0.43	0.05	0.09	316

excitement	0.22	0.07	0.11	586
fear	0.37	0.12	0.18	348
gratitude	0.68	0.73	0.70	1360
grief	0.00	0.00	0.00	78
joy	0.37	0.20	0.26	897
love	0.57	0.48	0.52	1014
nervousness	0.11	0.01	0.01	156
neutral	0.40	0.73	0.52	11161
optimism	0.38	0.23	0.29	894
pride	0.11	0.01	0.01	128
realization	0.18	0.07	0.10	964
relief	0.25	0.01	0.01	162
remorse	0.37	0.11	0.17	303
sadness	0.32	0.17	0.22	727
surprise	0.32	0.16	0.21	665
accuracy			0.39	34364
macro avg	0.32	0.19	0.22	34364
weighted avg	0.36	0.39	0.35	34364

Best Sentiment Score: 0.5395908242774352

Best Sentiment Estimator: MultinomialNB(alpha=1)

Sentiment Classification Report

	precision	recall	f1-score	support
ambiguous	0.42	0.23	0.30	3816
negative	0.53	0.52	0.52	7677
neutral	0.49	0.50	0.49	11161
positive	0.61	0.70	0.65	11710
accuracy			0.54	34364
macro avg	0.51	0.49	0.49	34364
weighted avg	0.53	0.54	0.53	34364

===== TOP-DT =====

Best Emotion Score: 0.4057807286934899

Best Emotion Estimator: DecisionTreeClassifier(max_depth=100, min_samples_split=30)

Emotion Classification Report:

	precision	recall	f1-score	support
admiration	0.46	0.44	0.45	2141
amusement	0.48	0.51	0.50	1178
anger	0.29	0.21	0.24	1060
annoyance	0.14	0.08	0.10	1584

approval	0.19	0.09	0.12	2240
caring	0.18	0.09	0.12	721
confusion	0.26	0.13	0.17	999
curiosity	0.35	0.15	0.21	1188
desire	0.30	0.21	0.24	389
disappointment	0.15	0.06	0.08	965
disapproval	0.25	0.10	0.15	1558
disgust	0.34	0.14	0.19	582
embarrassment	0.27	0.08	0.13	316
excitement	0.23	0.10	0.14	586
fear	0.52	0.30	0.38	348
gratitude	0.78	0.73	0.75	1360
grief	0.00	0.00	0.00	78
joy	0.36	0.20	0.25	897
love	0.55	0.58	0.57	1014
nervousness	0.34	0.06	0.11	156
neutral	0.42	0.78	0.55	11161
optimism	0.45	0.23	0.30	894
pride	0.18	0.02	0.03	128
realization	0.17	0.03	0.06	964
relief	0.08	0.01	0.02	162
remorse	0.38	0.32	0.35	303
sadness	0.42	0.16	0.23	727
surprise	0.38	0.22	0.28	665
accuracy		0.41		34364
macro avg	0.32	0.21	0.24	34364
weighted avg	0.37	0.41	0.36	34364

Best Sentiment Score: 0.5154594628572621

Best Sentiment Estimator: DecisionTreeClassifier(max_depth=100, min_samples_split=5)

Sentiment Classification Report

	precision	recall	f1-score	support
ambiguous	0.37	0.26	0.31	3816
negative	0.53	0.39	0.45	7677
neutral	0.44	0.71	0.54	11161
positive	0.73	0.51	0.60	11710
accuracy		0.52		34364
macro avg	0.52	0.47	0.47	34364
weighted avg	0.55	0.52	0.52	34364

===== TOP-MLP =====

Best Emotion Score: 0.39962609113987346

Best Emotion Estimator: MLPClassifier(activation='identity', hidden_layer_sizes=(5, 10), max_iter=2)

Emotion Classification Report:

	precision	recall	f1-score	support
admiration	0.41	0.48	0.44	2141
amusement	0.50	0.53	0.52	1178
anger	0.35	0.04	0.07	1060
annoyance	0.11	0.00	0.01	1584
approval	0.00	0.00	0.00	2240
caring	0.00	0.00	0.00	721
confusion	0.38	0.06	0.10	999
curiosity	0.44	0.09	0.14	1188
desire	0.00	0.00	0.00	389
disappointment	0.11	0.00	0.00	965
disapproval	0.11	0.00	0.00	1558
disgust	0.00	0.00	0.00	582
embarrassment	0.00	0.00	0.00	316
excitement	0.00	0.00	0.00	586
fear	0.00	0.00	0.00	348
gratitude	0.70	0.77	0.73	1360
grief	0.00	0.00	0.00	78
joy	0.22	0.11	0.14	897
love	0.56	0.59	0.58	1014
nervousness	0.00	0.00	0.00	156
neutral	0.38	0.92	0.54	11161
optimism	0.00	0.00	0.00	894
pride	0.00	0.00	0.00	128
realization	0.00	0.00	0.00	964
relief	0.00	0.00	0.00	162
remorse	0.71	0.02	0.03	303
sadness	0.34	0.13	0.19	727
surprise	0.36	0.01	0.01	665
accuracy		0.41		34364
macro avg	0.20	0.13	0.13	34364
weighted avg	0.29	0.41	0.29	34364

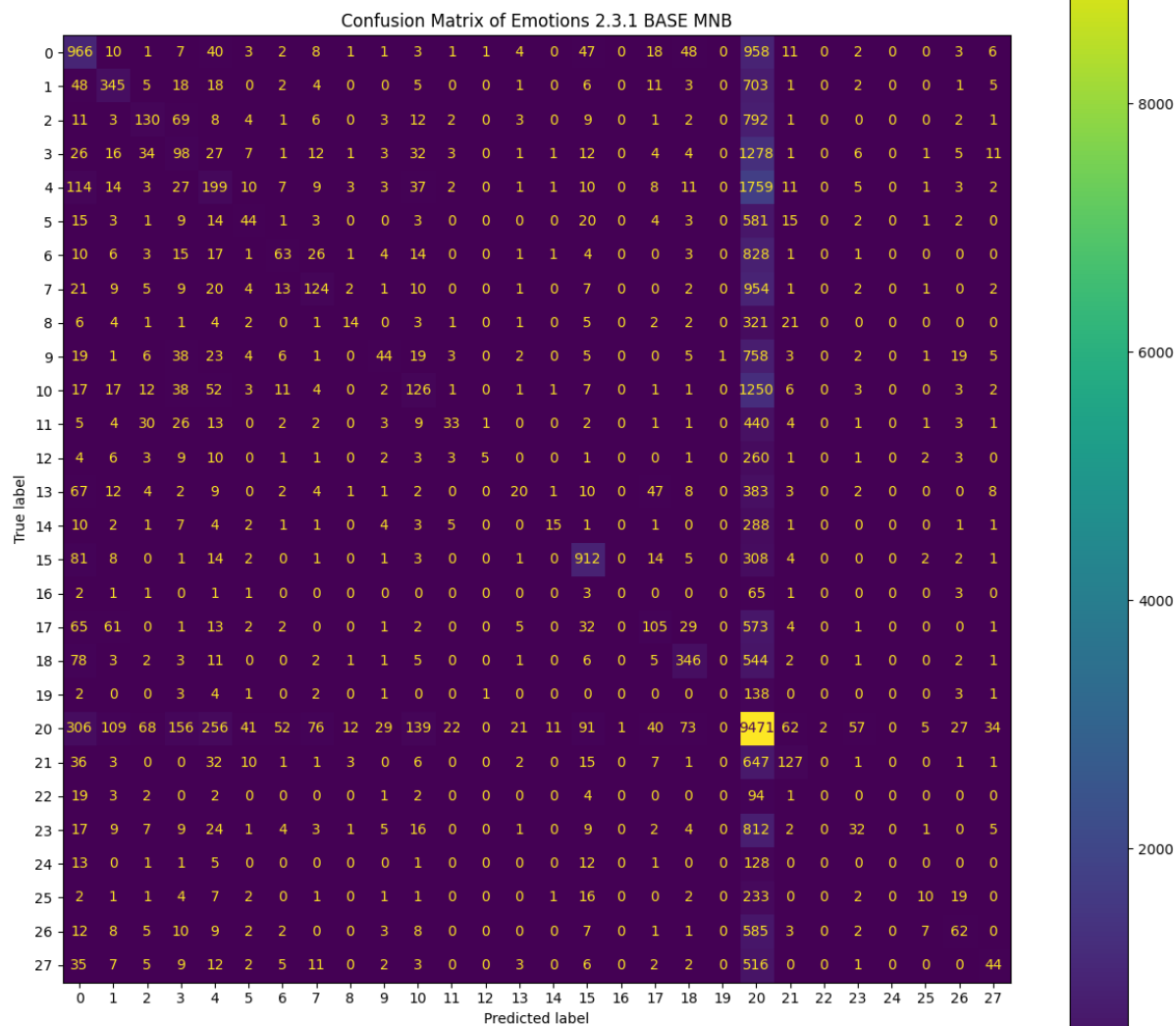
Best Sentiment Score: 0.5625072439484619

Best Sentiment Estimator: MLPClassifier(activation='tanh', hidden_layer_sizes=(5, 10), max_iter=2)

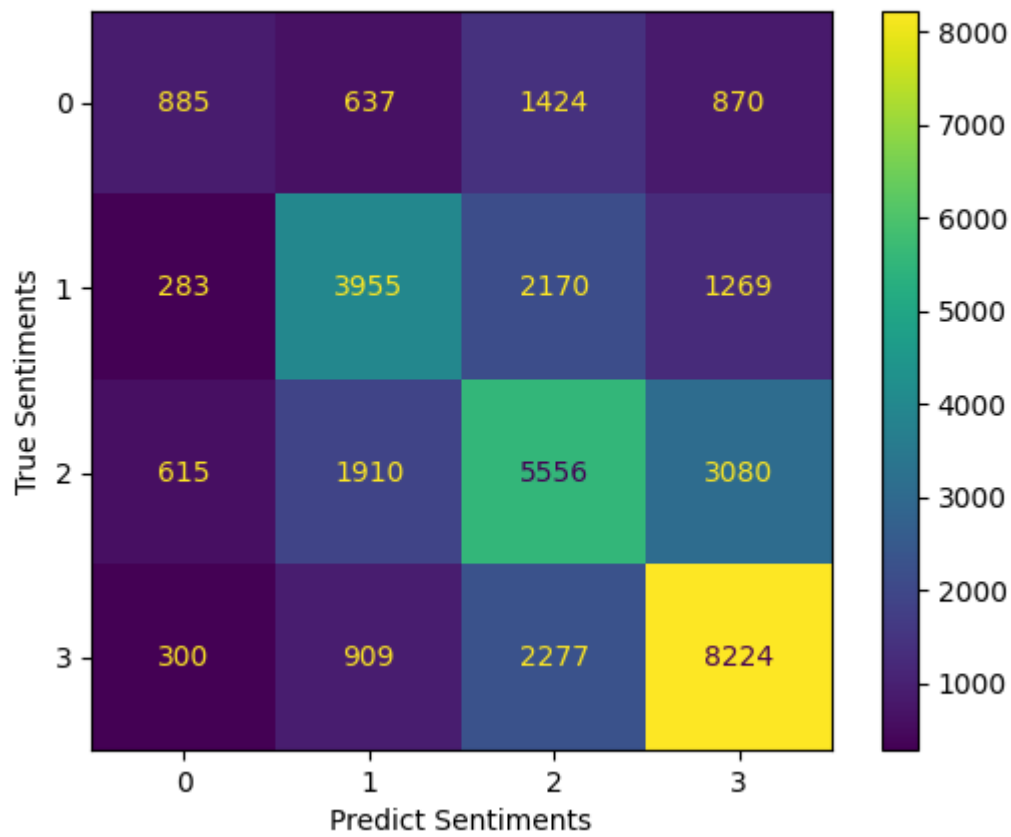
Sentiment Classification Report

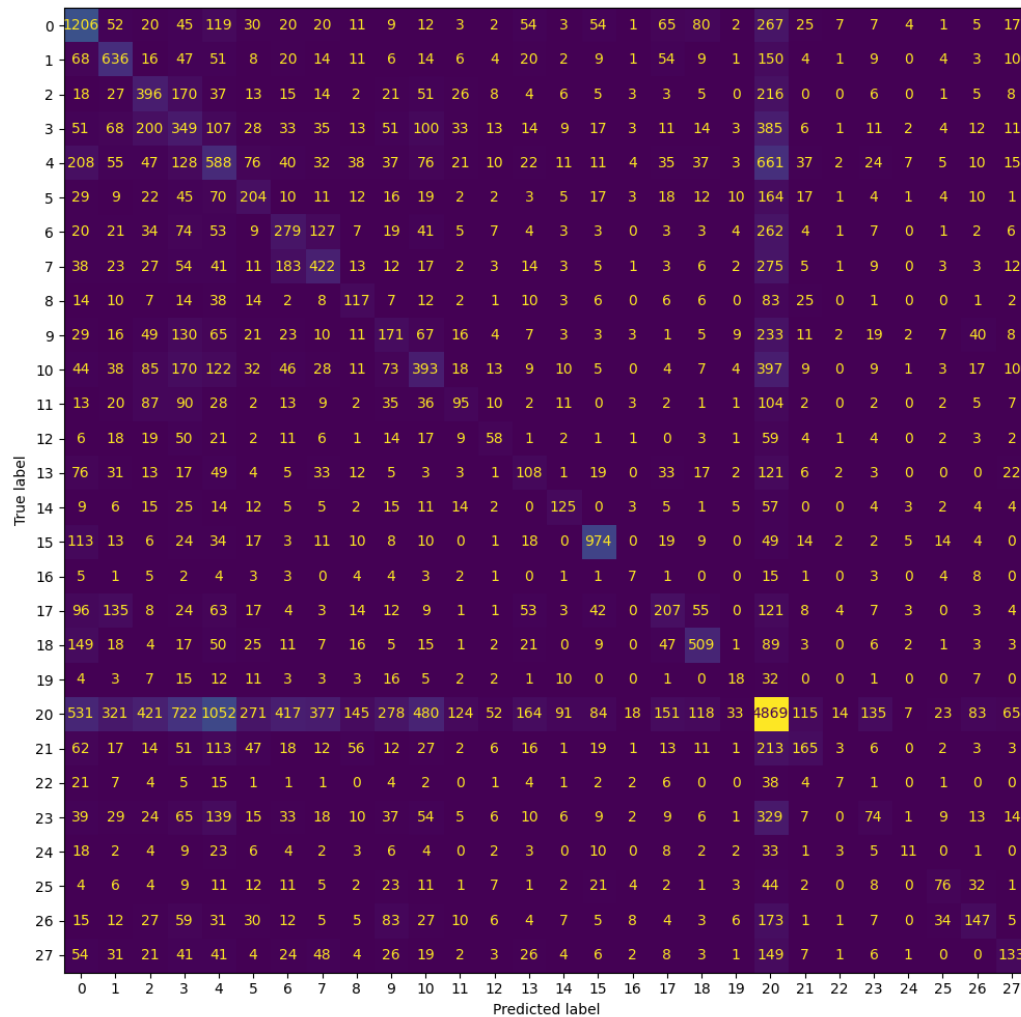
	precision	recall	f1-score	support
ambiguous	0.45	0.23	0.31	3816
negative	0.55	0.54	0.54	7677
neutral	0.50	0.56	0.53	11161
positive	0.66	0.69	0.68	11710

accuracy		0.56	34364	
macro avg	0.54	0.51	0.51	34364
weighted avg	0.56	0.56	0.56	34364

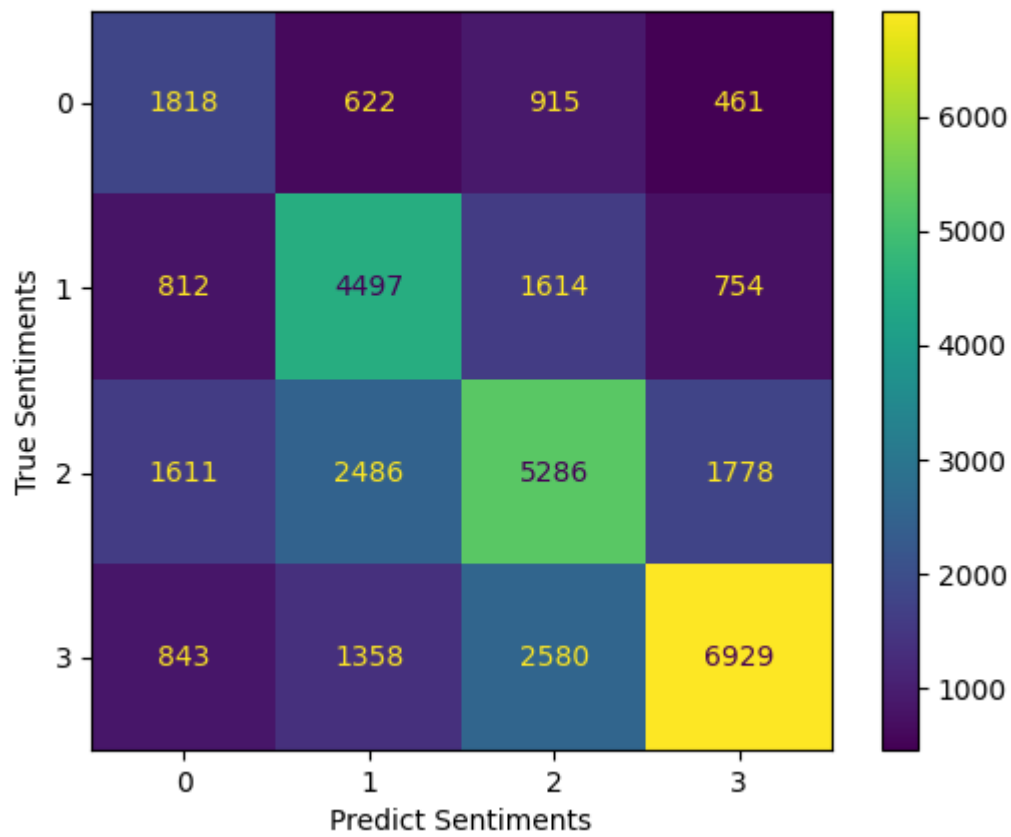


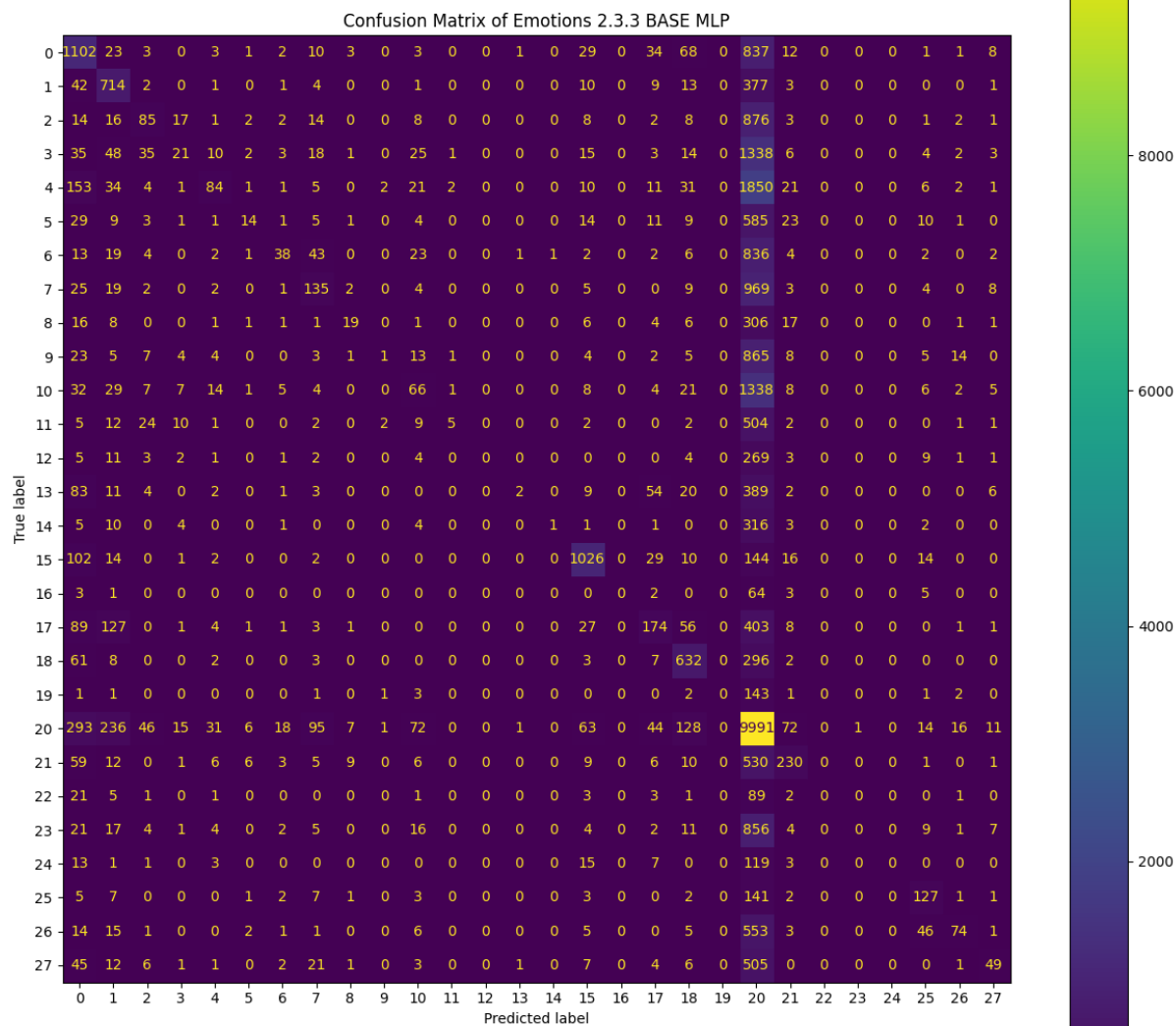
Confusion Matrix of Sentiments 2.3.1 BASE MNB



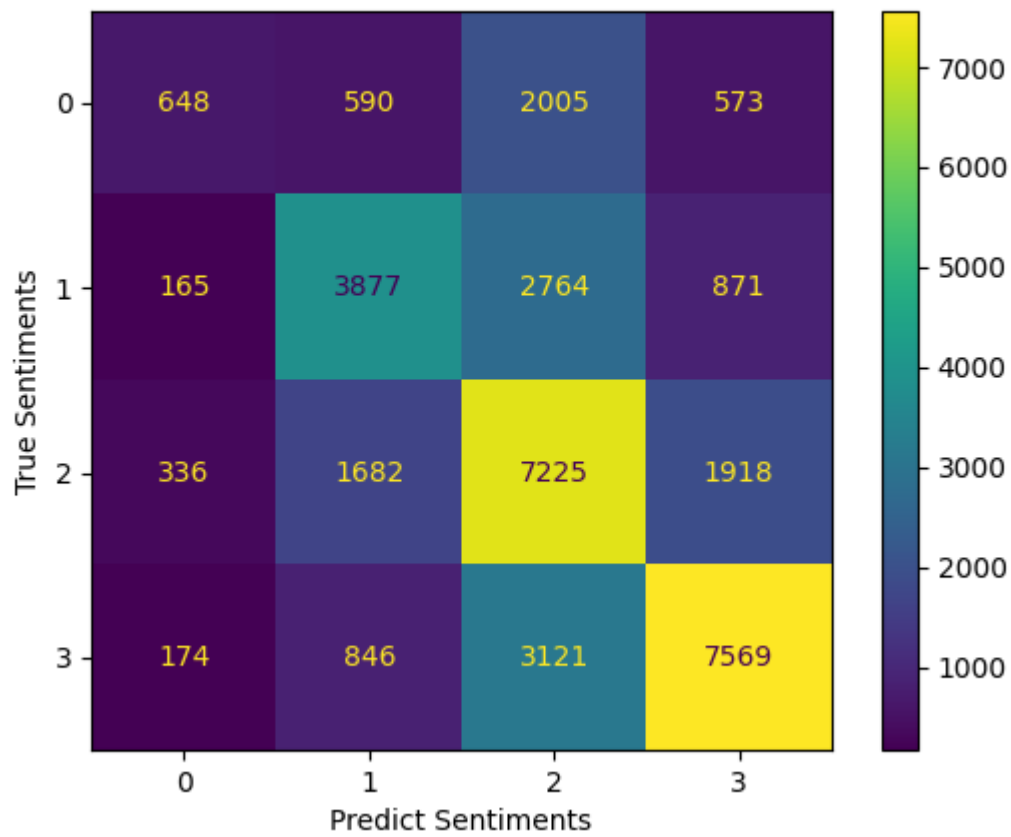


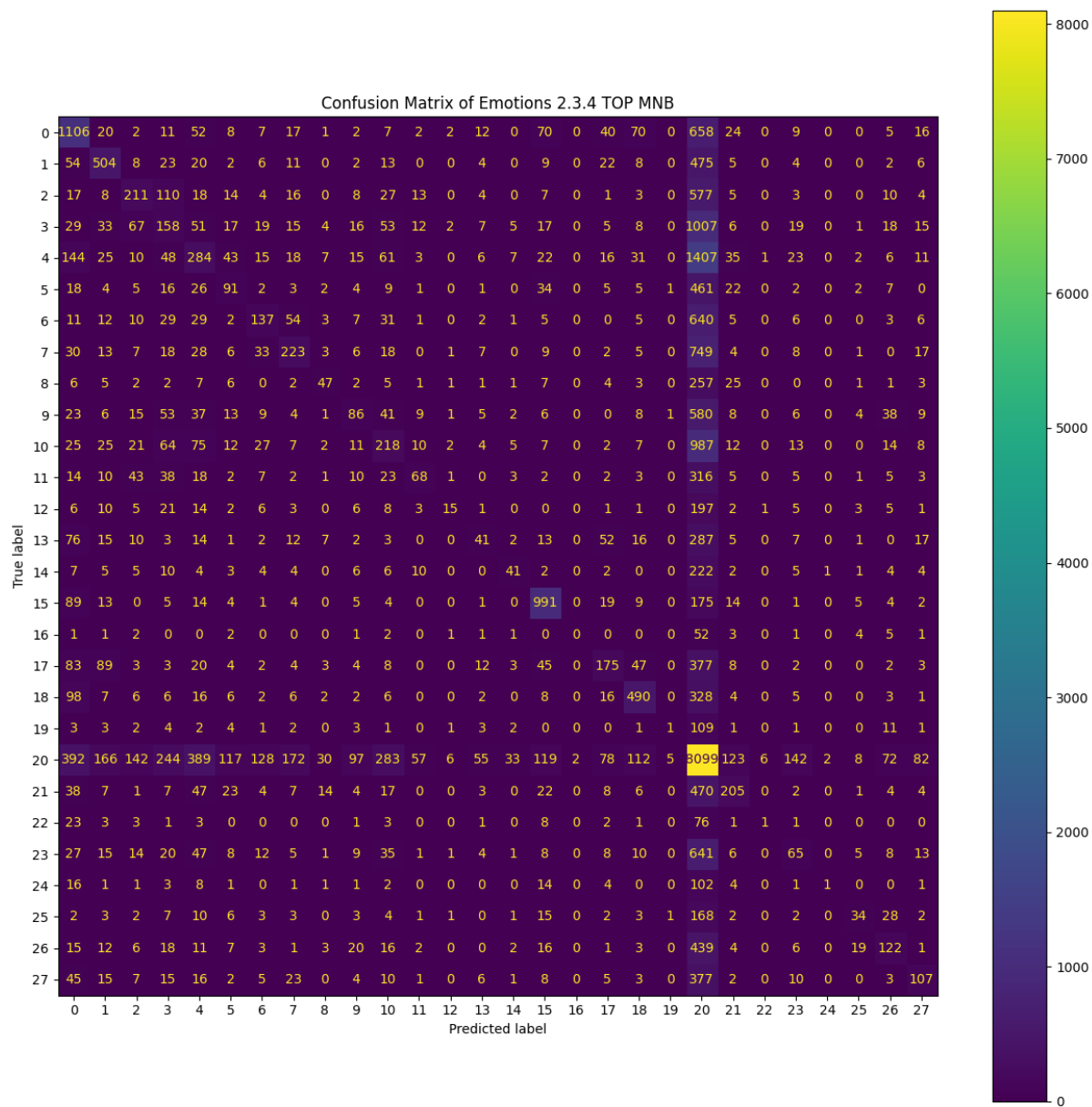
Confusion Matrix of Sentiments 2.3.2 BASE DT



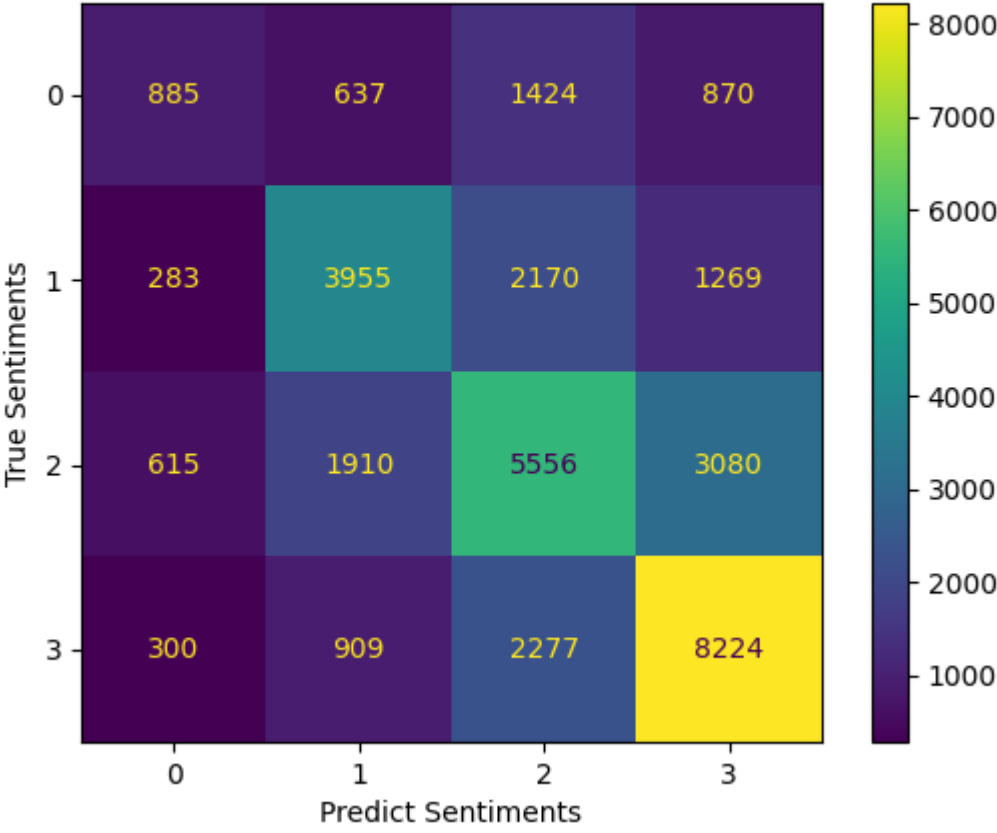


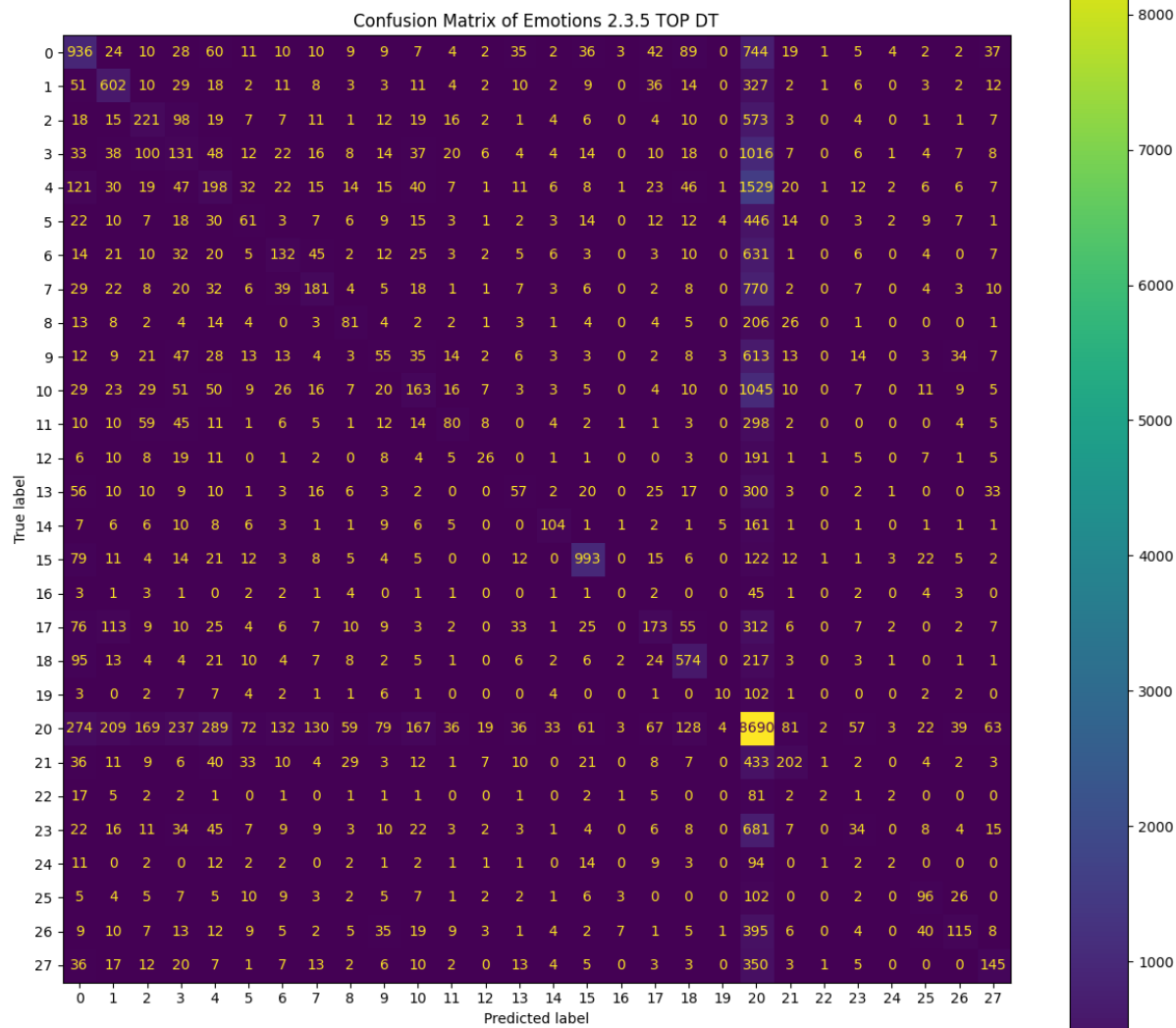
Confusion Matrix of Sentiments 2.3.3 BASE MLP

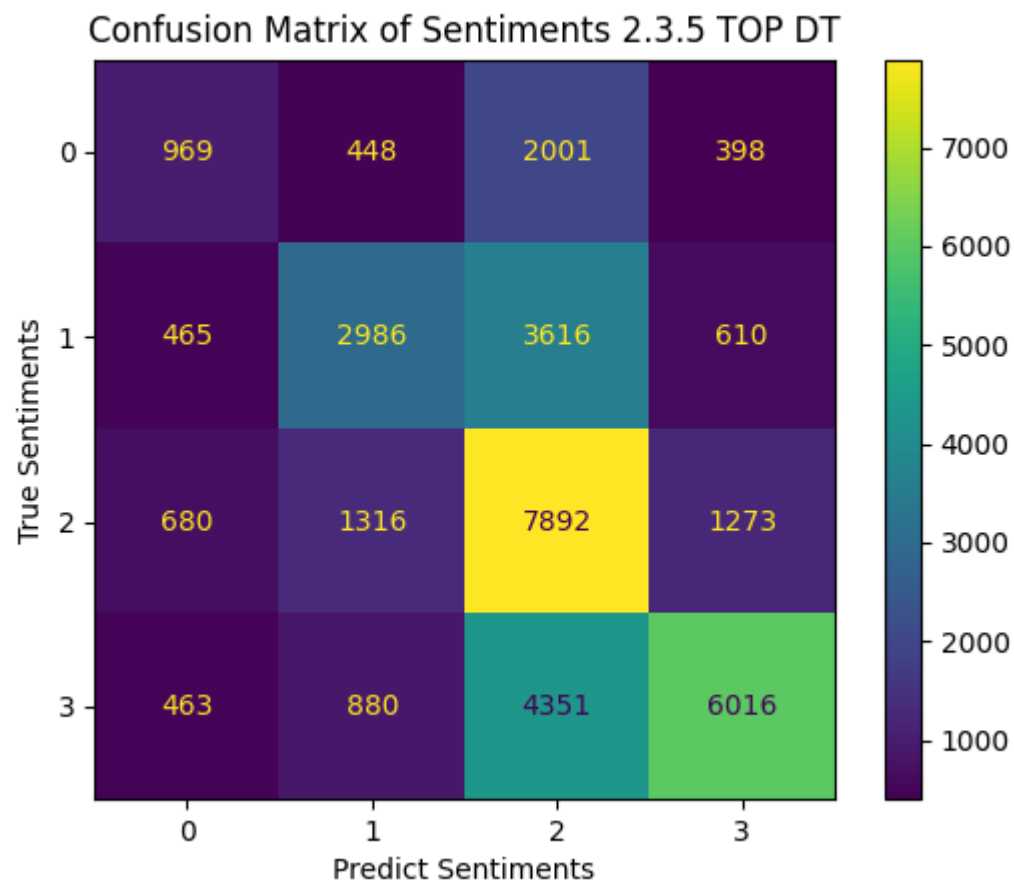


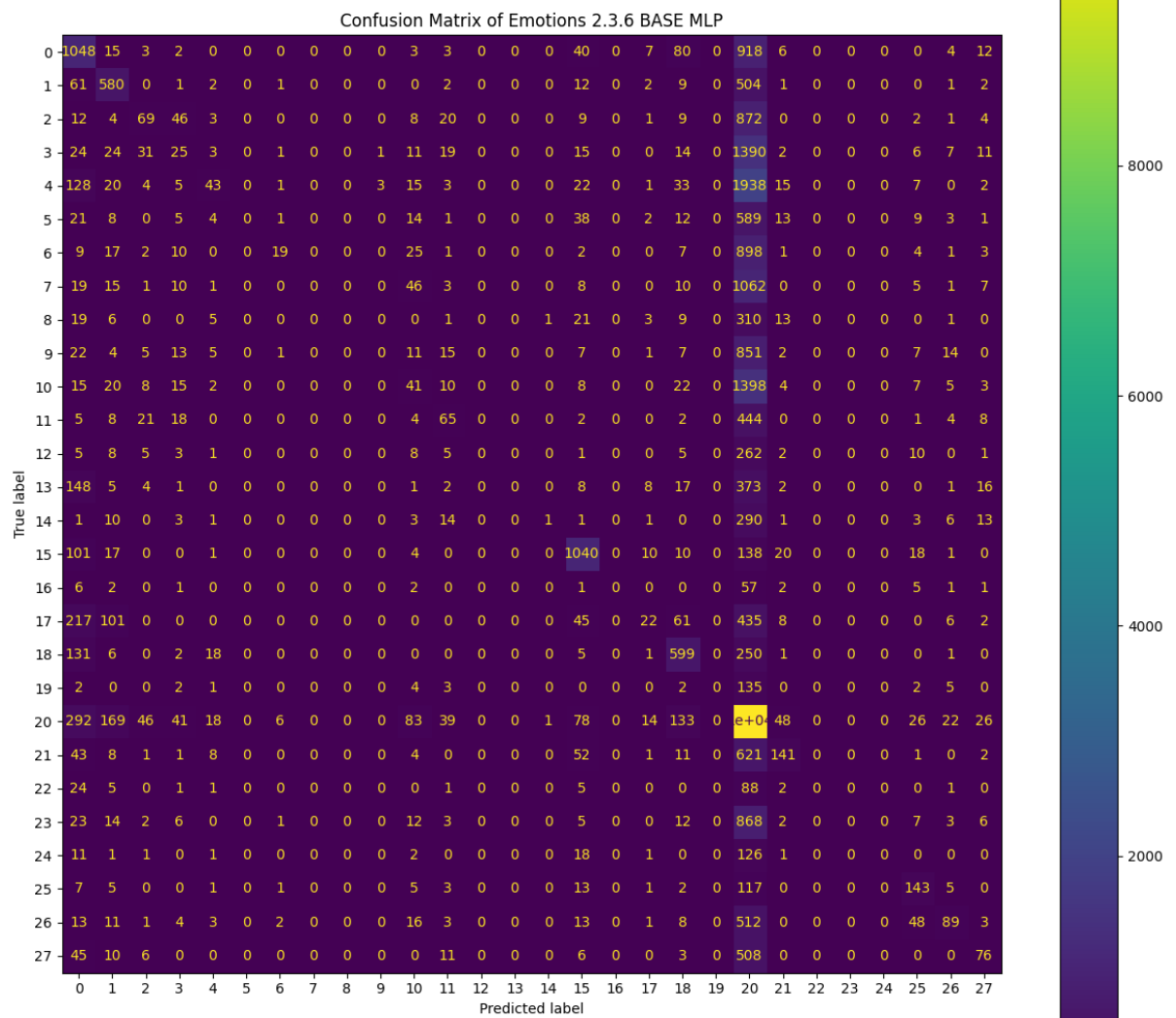


Confusion Matrix of Sentiments 2.3.4 TOP MNB









Confusion Matrix of Sentiments 2.3.6 BASE MLP

